













Date	Phase	Comp.	Time(GMT)		
			h	m	s
7.	eP 1	Z	14	27	53
	eP 2	NEZ		28	00
	iS 2	NZ			42.2
	i	E			42.8
7.	iP	NEZ	21	52	25.8
	iS	N			51
	i	E			54
	i	Z			56
	P:W,C				
7.	iP	Z	22	51	55.9
	i	NE			56.3
7.	iP	Z	22	55	57.8
	i	E			58.0
7.	i	N			58.7
	P:D				
8.	iPKP	Z	02	14	41.5
	e	Z		15	10
8.	P:C				
31.3 S., 67.4 W. San Juan Province, Argentina. h:84 km ca. H=01 54 17.1 USCGS					
8.	iP	EZ	06	11	06.7
	i	N			07.0
8.	P	Z	08	32	18
	eL	E			41 57
8.	eL	N			43 35
3.4 S., 135.6 E. Near coast of New Guinea. h:41 km ca. H=08 24 45.7 USCGS					
8.	iP	Z	10	08	15.0
	i	NE			15.3
8.	P:C				
8.	iP	NEZ	10	28	16.1
	e	N			29 49
8.	P:S,W,C				
8.	iP	EZ	14	00	22.3
	i	N			22.5
	S	NE			34
	iS	Z			34.2
	P:E,D				
8.	iP	NEZ	17	31	07.5
					(cont.)

Date	Phase	Comp.	Time(GMT)			
			h	m	s	
continued						
8.	S	E	17	31	23.3	
	i	NZ			23.7	
	P:S,E,D					
8.	PKP	Z	19	43	31	
	e	NE			32	
	ePP	E		47	12	
	ePP	Z			14	
	eSKKS	NE		54	06	
	ePPS	E	20	02	33	
	eSS	N		06	52	
	eSS	E		07	25	
	eLq	N		24	01	
	eLq	E		25	08	
	eLr	EZ		34	11 ca.	
	eLr	N			48	
	Mag. 6 $\frac{1}{4}$ (Mat.) 24.3 S., 69.7 W. Northern Chile. h:48 km ca. H=19 23 35.4 USCGS					
	8.	iP	EZ	22	59	24.4
		i	N			24.6
eL		E	23	08	14	
eL		N		09	06	
8.	P:C					
0.2 N., 123.5 E. Northern Celebes. h:88 km ca. H=22 52 05.2 USCGS						
9.	e	E	00	26	20	
	e	N			30	
9.	e	E				
43.7 N., 127.8 W. Off coast of Oregon. h:47 km ca. H=00 01 03.5 USCGS						
9.	eP	Z	07	18	24	
	i	NE			25.1	
	i	Z			26.1	
9.	i	E			28.5	
9.	P Z, eP	NE	08	27	54	
	eS	N			37 50	
	eL	NE			48 21 ca.	
27.7 S., 176.4 W. Kermadec Is. region. h:84 km ca. H=08 16 08.2 USCGS						
9.	iP	NEZ	08	47	06.1	
	i	Z			15	
	e	N			48 12	
	P:N,E,D					

Date	Phase	Comp.	Time(GMT)		
			h	m	s
9.	eP ?	Z	10	56	47
	e	E			58 04
	e	N			26
9.	iP	Z	12	50	38.3
	i	NE			38.8
	i	N			44.9
	i	E			50.1
	S	NE	52	05	
	i	Z			06.4
	eL	NE			43
9.	P:C				
9.	iP	NEZ	14	08	22.2
	P:N,C				
9.	e	Z	17	33	26
	eL	NE			38 26 ca.
9.	P	NZ	20	40	05.4
	i	N			20.2
	iS	NZ			25.4
10.	P	Z	09	13	16.9
	i	N			18.7
	i	Z			43.1
10.	S	NE			14 11
10.	eP	Z	10	16	24
	eS	NE			25 38
	eL	NE			33.6
15.8 S., 172.3 W. Samoa Is. region. h:52 km ca. H=10 05 13.7 USCGS					
10.	iP	NEZ	10	59	00.2
	i	N			29.1
10.	P:N,W,D				
10.	iP	NEZ	14	00	39.8
	iS NE,S Z				55.7
10.	P:N,W,C				
10.	iP	NEZ	18	24	05.2
	i	N			25 21.9
	P:S,W,C				
11.	iP	NEZ	00	00	15.4
	i	E			23
	i	Z			26.4
	i	NE			27.4
	P:N,D				
11.	P	Z	00	06	48.6
					(cont.)

Date	Phase	Comp.	Time(GMT)		
			h	m	s
continued					
11.	eS ?	N	00	07	17
	i	E			21
	P:C				
11.	iP	NEZ	00	43	09.6
	S	E			42.4
	i	N			46.4
	i	N			49
	P:N,W,C				
11.	iP NZ,P E		01	00	24.4
	i	Z			53.4
	iPcP	Z			01 41.9
	eS	N			08 27
	P:N,E,C				
8.4 S., 112.5 E. Near coast of Java. h:39 km ca. H=00 51 24.2 USCGS					
11.	iP NZ,P E		05	36	56.9
	i	N			58.4
	ipP	Z			38 38
11.	eS	E			45 23
	P:S,E,D				
19.1 S., 178.0 W. Fiji Is. region. h:486 km ca. H=05 26 36.2 USCGS					
11.	P	Z	07	19	43.4
	P:D				
6.4 S., 146.5 E. Near coast of New Guinea. h:122 km ca. H=07 11 47.9 USCGS					
11.	ePKP 1	Z	08	58	16
	PKP 2	Z			42.4
	i	E			46.4
	i	Z			50
	ePP	Z	09	02	23
	eSKKS	E			09 04
	e	E			20 04
	PSPS ?	N			22 16
	Lr	E			49 50
	Lr	Z			50 15
	Lr	N			56 22
Mag. 6 $\frac{1}{2}$ (Mat.) 37.2 S., 73.6 W. Near coast of Southern Chile. h:47 km ca. H=08 38 27.1 USCGS					







Date	Phase	Comp.	Time(GMT)		
			h	m	s
14.	P eL	Z N	19	42	46
Mag. 5.1 (Mat.) 40.8 N., 127.4 W. Off coast of northern California. h: 45 km ca. H=19 31 34.4					
USCGS					
14.	P i S P:C	Z E N	22	46	34.8
35.3					
47 22					
14.	P i eS P:D	Z N N	23	55	33.5
34.1					
56 32					
15.	P i eS P:S,E,D	NEZ Z N	02	35	22.3
29					
36 15					
15.	P	Z	06	13	29
15.	P eL ?	Z E	06	15	06
48 32					
15.	iP iS P:S	NEZ E	06	55	22.8
23.8					
15.	iP i S i P:D	Z NE N E	08	39	58.0
59.6					
40 34					
46					
15.	P i P:D	Z Z	11	22	02.8
09.3					
7.1 S., 122.3 E. Flores Sea. h: 248 km ca. H=11 13 46.8					
USCGS					
15.	P eS e P:S,D	NZ Z N	12	19	45.5
20 33					
21 05					
15.	P i eS P:D	Z E E	18	56	42.8
54.3					
57 30					

Date	Phase	Comp.	Time(GMT)		
			h	m	s
15.	P S ScS eL	NZ E E E	19	22	01.2
Mag. 5.1 - 5.1 (Mat.) 15.3 S., 166.6 E. Santa Cruz Is. h: 58 km ca. H=19 12 10.8					
USCGS					
15.	iP P:N,C	NZ	19	59	03.3
15.4 S., 166.4 E. New Hebrides Is. region. h: 107 km ca. H=19 49 18.4					
USCGS					
15.	iP Z,P N i S i L P:S,D	NE E E E	21	04	11.1
12.2					
12 44					
16 17					
20 39					
20.0 S., 177.2 W. Tonga Is. region. h: 89 km ca. H=20 53 05.3					
USCGS					
15.	P eS P:S,W	NEZ NE	22	09	27.0
12 14					
16.	P i S L L P:C	Z N E NE N	03	39	34.4
37.4					
45 20					
48 28					
52 07					
Mag. 5 (Mat.) 51.8 N., 171.3 W. Fox Is. h: 38 km ca. H=03 32 11.7					
USCGS					
16.	P i PcP	Z Z Z	04	00	03.2
39					
02 15					
52.0 N., 171.5 W. Fox Is. h: 62 km ca. H=03 52 43.7					
USCGS					
16.	P S	Z N	07	02	10.2
32.3					
16.	eP i S i i	Z Z N E E	09	57	32
33.2					
59 16					
26					

Date	Phase	Comp.	Time(GMT)		
			h	m	s
16.	iP i S P:C	Z N NE	10	21	01.3
01.7					
54.7					
16.	P i S ScS P:C	Z Z N E	17	39	24.7
36.2					
49 20					
56					
27.9 S., 176.4 W. Kermadec Is. region. h: 53 km ca. H=17 27 34.1					
USCGS					
16.	P 1 P 2 S i P 1:N,E,C Mag. 5.7 (Mat.) 30.0 N., 132.0 E. Ryukyu Is. H=21 45 24.0	NEZ NEZ NE Z	21	47	22.3
23.8					
49 04					
42					
USCGS					
16.	eP	Z	21	53	23
16.	iP i i P:N,E,D	NEZ Z N	23	29	25.6
34					
37					
17.	eP eL	Z E	01	05	16
23 56					
14.3 S., 170.4 E. New Hebrides Is. h: 137 km ca. H=00 55 30.6					
USCGS					
17.	P S i	NEZ N N	04	00	10
23					
25					
17.	eP i eS eL eLr	Z E E E Z	04	30	18
25					
34 30					
35 53					
36 55					
12.6 N., 143.2 E. South of Guam, Mariana Is. h: 27 km ca. H=04 24 55.0					
USCGS					
17.	P i S i i i	Z EZ N N E E	06	48	03
03.2					
38.8					
43.5					
45.3					
50 15					

Date	Phase	Comp.	Time(GMT)		
			h	m	s
17.	P i eS L L	Z NEZ E E N	08	38	13
15					
41 26					
43 53					
44 09					
49.0 N., 155.6 E. Kurile Is. h: 36 km ca. H=08 34 03.2					
USCGS					
17.	iP i S P:C	Z NE NEZ	16	05	57.7
58.3					
06 22.7					
17.	iP i S iL P:S,W,C Mag. 6.1 (Mat.) 52.0 N., 173.9 E. Near Is., Aleutian Is. h: 21 km ca. H=19 29 19.3	NEZ EZ NE NE	19	35	26.9
38 56					
40 22					
41 41					
USCGS					
17.	P	Z	19	56	20.4
18.	L	N	00	39	15
33.3 N., 99.3 E. Sinkiang Province, China. h: 27 km ca. H=00 23 45.2					
USCGS					
18.	P i S i i	Z Z N Z E	06	31	07
10.0					
51.5					
52.0					
52.5					
18.	P i iS P:C	Z E NEZ	13	02	07.5
08.5					
13.0					
18.	P i i S S P:C	Z E N N	15	59	22.2
28					
32					
44					
18.	iP i S L L P:D	Z NE E E Z	20	44	31.8
32.1					
49 41					
51 55					
52 15					
4.6 N., 125.7 E. Near south coast of Mindanao, P. I. h: 126 km ca. H=20 37 57.0					
USCGS					







Date	Phase	Comp.	Time(GMT)
			h m s
continued.			
	SS	N	14 10 25
	SS	E	30
	SSS	N	13 51
	SSS	E	55
	Lq	NE	14 48
	i	N	16 22
	Lr	Z	19 02
	Lr	NE	22 00
	Mag. 6 - 6 $\frac{1}{2}$ (Mat.)		
	21.3 S., 174.4 W.		
	Tonga Is. h:97 km ca.		
	H=13 44 35.8 USCGS		
22.	P Z, eP	NE	14 33 25
	i	N	35
	i	NE	41
22.	iP	Z	17 00 07.1 ca.
	i	N	23.8
22.	P	NZ	17 43 51
	e	E	52
	i	N	53.7
	i	E	47 08
	i	N	51 25
	S	NE	53 10
	i	E	54 07
	SS	E	57 06
	SS	N	30
	SSS or		
	Lq	NE	18 02 39
	Lr	Z	06 05
	Lr	NE	42
	Mag. 6 $\frac{1}{4}$ - 6 $\frac{1}{2}$ (Mat.)		
	22.8 S., 176.1 W.		
	Tonga Is. region.		
	h:35 km ca.		
	H=17 32 21.6 USCGS		
22.	iP	NEZ	18 25 25.7
	S	NE	26 08
	P:S,W,C		
23.	iP	NEZ	02 57 36.6
	i	EZ	49
	i	NZ	58 07
	S	NEZ	03 07 48
	SS	N	12 25
	SSS	N	16 36
	Lq	E	19 40
	G	E	22.0
	Lr	Z	25 30
	Lr	N	26 52
	Lr	E	27 24
	i	Z	38 30
	i	Z	39 40
	(cont.)		

Date	Phase	Comp.	Time(GMT)
			h m s
continued.			
	P:S,E,C		
	Mag. 6 $\frac{1}{2}$ (Mat.)		
	36.4 N., 28.3 E.		
	Dodecanese Is. h:49 km ca.		
	H=02 45 16.0 USCGS		
23.	P	EZ	06 18 10.6
	i	NE	14.7
	i	E	17.1
	i	Z	18.6
	i	Z	27
	i	E	29
	i	E	50
	i	N	19 06
23.	P	EZ	12 52 01.9
	i	Z	05
	i	N	08
	i	Z	15
	S?	N	39
	P:W,C		
23.	iP	NZ	12 54 44.4
	i	NE	55.19
	P:N,C		
23.	P Z, eP	N	14 14 29
	i	NZ	41.6
	i	E	42.1
	i	Z	45
23.	eP	NEZ	16 16 34
	i	NEZ	47
	eL	E	20 35
23.	e	Z	17 02 00
	e	N	08
	ePKP	Z	03 14
	i	Z	14 06.3
	i	Z	12
	SS	E	20 25
	eLq	NE	31 40
	Lr	NEZ	39 56
	Mag. 5 3/4 - 6 (Mat.)		
	12.6 N., 87.3 W.		
	Near coast of Nicaragua.		
	h:138 km ca.		
	H=16 44 59.4 USCGS		
24.	P	NZ	11 03 06.5
	i	E	08.4
	S	NEZ	04 39
	e	E	56
	L E, eL	N	05 10
	eL	Z	47
	P:N,C		

Date	Phase	Comp.	Time(GMT)
			h m s
24.	iP	NEZ	16 13 59.8
	S	NEZ	14 12.7
	P:N,E,C		
24.	P	NZ	17 16 54.3
	i	E	54.7
	S	NE	18 10
24.	P	NEZ	17 26 51
	S	NE	33 38
	Lq	NE	37 16
	Lq?	Z	36
	eLr	Z	43.0
	Mag. 5 $\frac{1}{4}$ (Mat.)		
	8.2 S., 121.8 E.		
	Flores Sea. h:36 km ca.		
	H=17 18 17.6 USCGS		
24.	iP	NEZ	22 30 04.5
	iS	N	21.5
	i	E	22
	P:N,C		
25.	iPKP	Z	05 04 25.5
	27.2 S., 71.3 W.		
	Near coast of northern Chile.		
	h:46 km ca.		
	H=04 44 15.1 USCGS		
25.	iP	NZ	09 20 03.1
	i	E	03.7
	i	NZ	04.3
	i	NZ	14.7
	S	NE	21 03
	i	E	08
	P:S,D		
	31.3 N., 139.9 E.		
	South of Honshu, Japan.		
	h:171 km ca.		
	H=09 18 48.4 USCGS		
25.	iP	NZ	14 57 52.2
	iS	NZ	53.1
	i	N	54
	P:C		
25.	P	NZ	19 12 56.4
	i	NZ	59
	P:D		
25.	P NZ, eP	E	19 42 10
	i	Z	43 21
	i	E	24
	4.2 S., 103.3 E.		
	Sumatra. h:93 km ca.		
	H=19 33 05.7 USCGS		
26.	iP NZ, P	E	00 33 33.0
	S	NEZ	52
	P:S,D		
26.	P	NEZ	03 24 24.7
	i	E	33
	i	N	40
	i	N	25 24
	i	N	28
	P:S,C		
26.	Lr	E	04 20.0
	Lr	NZ	21 48
	Mag. 5 $\frac{1}{4}$ - 5 $\frac{1}{2}$ (Mat.)		
	32.9 S., 109.6 W.		
	About 350 miles south of Easter Is. h:54 km ca.		
	H=03 22 08.6 USCGS		
26.	Lr	NEZ	05 35.0
	Mag. 5 $\frac{1}{4}$ - 5 $\frac{1}{2}$ (Mat.)		
	32.7 S., 109.1 W.		
	Easter Is. region.		
	h:43 km ca.		
	H=04 36 08.5 USCGS		
26.	P	NZ	06 17 05.8
	i	Z	06.9
	i	E	08.1
	18.6 S., 169.1 E.		
	New Hebrides Is. region.		
	h:132 km ca.		
	H=06 06 53.3 USCGS		
26.	iPKP	Z	09 00 37.2
	i	E	37.9
	i	N	38.6
	P:C		
	10.1 S., 70.6 W.		
	Peru - Brazil border.		
	h:678 km ca.		
	H=08 42 15.0 USCGS		
26.	iP Z, P	NE	22 50 56.3
	i	NZ	57.2
	i	Z	51 05
	S?	N	47
	i	E	56
	i	Z	52 11
	i	NE	18
	i	Z	32
	P:S,W,C		
	Mag. 5 (Mat.)		
	38.4 N., 142.9 E.		
	Near east coast of Honshu, Japan. h:60 km ca.		
	H=22 49 49.4 USCGS		



Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)			
			h	m	s				h	m	s	
27.	P	Z	01	02	25.6		continued					
	i	NE			25.9		eLq	NE	17	18	27	
	S	NZ		05	07		eLr	Z		21	47	
27.	P Z, eP	NE	02	38	50		Lr	N		22	21	
	eS	NZ		39	39		Lr	E		23	39	
27.	P	EZ	02	56	02.0		Mag. 5 3/4 (Mat.) 0.8 N., 98.5 E. Near coast of northern Sumatra. h: 39 km ca. H=16 52 19.3 USCGS					
	i	Z			24		27.	P	EZ	17	35	37
	i	N			36		i	Z			53	
	S ?	N			40		i	E		36	34	
	i	E			52		PcP	Z			51	
	i	NZ			55		1.2 N., 98.4 E. Near northwest coast of Sumatra. h: 36 km ca. H=17 26 32.2 USCGS					
27.	P	EZ	03	03	41.2		27.	eP	Z	22	44	13
	P:D						PP	E			54	
	51.2 N., 176.3 W. Andreanof Is. h: 60 km ca. H=02 56 50.1 USCGS						eS	NE		48	38	
27.	P	NEZ	03	40	28.7		eL	N		51	24	
	i	Z			37		eL	E			28	
	i	NEZ			48.7		15.8 N., 119.2 E. Near coast of Luzon, P.I. h: 92 km ca. H=22 38 35.5 USCGS					
	i	EZ			51.1		28.	P	Z	02	38	09
	P:S, E, C						i	N			10	
27.	iP	NZ	07	19	28.3		i	NEZ			28	
	i	E			28.6		e	E			49.0	
	i	Z			36		4.9 S., 145.0 E. Near north coast of New Guinea. h: 59 km ca. H=02 30 20.8 USCGS					
	S	NEZ		20	37		28.	iP	NZ, P E	04	09	08.4
	i	E			46		i	N			32	
	Mag. 5 1/2 - 5 1/2 (Mat.) 41.0 N., 142.1 E. Near north coast of Honshu, Japan. h: 156 km ca. H=07 18 12.2 USCGS						eS	E		17	22	
27.	iP	NEZ	10	24	02.9		e	NE		20	56	
	S	NEZ			43.6		eL	E			29.0	
	P:N, E, D						eL	N			30	44
27.	P	Z	10	47	07		P:N, C 5.4 S., 102.4 E. Off coast of southern Sumatra. h: 74 km ca. H=03 59 53.5 USCGS					
	35.2 N., 70.0 E. Hindu Kush. h: 32 km ca. H=10 37 39.6 USCGS						28.	iP	EZ	06	08	45.3
27.	P	NZ	17	01	24							(cont.)
	i	E			25							
	i	Z			38							
	PcP	Z		02	49							
	S	NE		09	04							
	SS	NE		12	53							

Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)			
			h	m	s				h	m	s	
	continued.					29.	P	Z	21	42	22.9	
	i	N	06	08	45.5		i	E			23.6	
	S	NEZ		09	21		i	N			25	
							S	NEZ			40	
28.	iP	NZ	19	39	45.7		P:C					
	i	E			46.3		30.	iP	NEZ	03	11	22.5
	P:S, D 26.0 S., 179.7 E. South of Fiji Is. h: 219 km ca. H=19 28 21.9 USCGS						iS	NEZ			25.1	
							P:N, W, D					
28.	iP	NZ	23	57	44.9		30.	P	Z	06	39	08
	i	E			45.3		i	NE			09	
	P:S, D						i	NE			16	
							i	Z			17	
							S	NEZ			40	00
29.	P	Z	00	30	15		30.	iP	NEZ	10	41	44.4
	52.1 N., 166.6 W. Fox Is. h: 67 km ca. H=00 22 55.6 USCGS						S	NZ			58	
							i	Z			42	05
							P:S, W, C					
29.	iP	NEZ	08	02	53.7		31.	P	Z	02	01	40.3
	iS	N			54.5		i	Z			02	05
	P:S, C						i	N				07
							P:D					
29.	iP	NZ, P E	08	21	01.8		31.	iP	NZ	04	45	18.6
	iS	NEZ			02.5		i	E				18.9
	P:S, C						i	Z				43.8
							i	NE				46
29.	iP	NZ, P E	08	32	31.3		i	Z				47.3
	iS	Z			32.6		P:N, C					
	P:S						31.	P	Z	14	30	18
							i	NE				20
29.	e	NE	08	41.0			i	Z				29
	e	E			52		S E, eS N 40 50					
							i	Z				49.0
29.	P	NZ	10	31	41.1		Lq	NE				53.0
	i	E			42		Lr	Z				56
	i	Z			45		eLr	E				56.7
	i	EZ			33		Mag. 5 1/2 - 5 3/4 (Mat.) 29.8 N., 114.0 W. Gulf of California. h: 74 km ca. H=14 17 43.8 USCGS					
	S	NEZ			22							
	i	E			37		31.	P Z, eP E		14	43	19
	L	N			48		i	N				19.4
	P:N, C Mag. 5.1 (Mat.) 27.7 N., 141.7 E. Bonin Is. h: 25 km ca. H=10 29 27.8 USCGS						PP	Z				32.8
							eS	NE				46
							eLr	Z				49
29.	eLq	N	11	39	32		48.9 N., 154.5 E. Kurile Is. h: 50 km ca. H=14 39 20.4 USCGS					
	eLr	Z			50							50
	Lr	N			47							54
	10.6 N., 39.4 E. Ethiopia. h: 25 km ca. H=10 52 01.2 USCGS											















Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
8.	iP S	NEZ NE	01	12	27.0 49	9.	eP Z	Z	04	04	49
	P:S,E,D 35.7 N., 140.2 E. Honshu, Japan. h:75 km ca.		J. M. A.				34.5 N., 73.8 E. Northern India. h:110 km ca. H=03 55 51.4		USCGS		
8.	iP i i S	EZ N N N	04	10	32.0 32.5 11 17 29	9.	P P:D	Z	09	47	32.5
	P:W,C						40.8 N., 50.7 E. Caspian Sea. h:17 km ca. H=09 36 49.2		USCGS		
8.	P i S e e	EZ N N N E	04	20	02.5 03.0 52 21 07 10	9.	iP i S	Z E NE	14	25	19.0 20.7 26 56
	P:W,C						29.3 N., 139.4 E. South of Honshu, Japan. h:466 km ca. H=14 23 25.1		USCGS		
8.	P i i	EZ E N	05	25	45.1 26 17 28.5	9.	iP P:E,C	EZ	15	26	45.8
	P:E,D						5.5 N., 95.8 E. Near coast of Sumatra. h:100 km ca. H=15 17 50.7		USCGS		
8.	iP P:S,W,C	NEZ	08	29	09.7	9.	iP S	NEZ N	15	44	35.5 45 47
							P:S,E,D 30.0 N., 140.1 E. South of Honshu, Japan. h:170 km ca. H=15 43 03.1		USCGS		
8.	P S	NEZ NE	08	30	45 31 02	9.	iP eS e e e	Z,P N N N E N	19	01	55.5 09 30 ca. 17 22 ca. 18 25 ca. 19 07 ca.
							P:C 10.7 S., 165.4 E. Santa Cruz Is. h:115 km ca. H=18 52 41.8		USCGS		
8.	iP i i i P:C	Z N N E	09	50	17.5 18.0 47.2 47.7	9.	iP i i e eS e L L	Z E N N E N E	22	14	24.6 25.4 25.6 16 04 21 13 15 24 51 25 03
	10.0 S., 161.2 E. Solomon Is. h:100 km ca. H=09 34 27.0		USCGS				P:D 7.6 S., 122.3 E. Flores Sea. h:25 km ca. H=22 05 50.0		USCGS		
8.	iP i i i P:C	NZ,P E NE N E	15	52	34.8 59 28 16 03 07	9.	iP i i e eS e L L	Z E N N E N E	22	14	24.6 25.4 25.6 16 04 21 13 15 24 51 25 03
	P:N,E,C 8.1 S., 121.7 E. Flores Sea. h:25 km ca. H=15 44 01.0		USCGS				P:D 7.6 S., 122.3 E. Flores Sea. h:25 km ca. H=22 05 50.0		USCGS		
8.	P P	Z	16	55	45						
	8.4 S., 121.6 E. Flores I. h:25 km ca. H=16 47 12.4		USCGS								

Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
9.	iP S P:C	NEZ NE	23	17	57.5 18 07	9.	iP i i	NEZ E N	21	18	38.6 41.2
							continued 51.4 N., 159.2 E. Kamchatka. h:24 km ca. H=04 02 41.3		USCGS		
10.	iP i P:C	NZ N	02	23	02.7 24 14.7	10.	iP i i iS ? i	Z,P E N NZ N E	23	57	04.0 05.2 14.6 54.0 57.2
							11. iP S e L P:C		04 07 29.1 11 27 36 13 30		
10.	eP Z	Z	05	57	17	10.	P i	EZ N	08	18	58 58.4
	48.9 N., 157.9 E. Near south coast of Kamchatka. h:60 km ca. H=05 53 00.6		USCGS				51.4 N., 159.2 E. Kamchatka. h:24 km ca. H=04 02 41.3		USCGS		
10.	P i	EZ N	08	18	58 58.4	10.	e e L L	N E N E	09	37	33 47 41 32 48
							Mag. 4 3/4 - 5 (Pal.) 8.1 N., 103.4 W. South of Mexico. h:25 km ca. H=08 52 01.1		USCGS		
10.	e e L L	N E N E	09	37	33 47 41 32 48	10.	ePKP Z	Z	12	04	50
							32.0 S., 70.3 W. San Juan Province, Argentina. h:83 km ca. H=11 44 49.8		USCGS		
10.	P i e e L L	NZ E N N E	15	22	18.8 43.2 13 11 24 15 30 47	10.	P i e e L L	NZ E N N E	15	22	18.8 43.2 13 11 24 15 30 47
							Mag. 7 1/2 (Mat.) 27.9 N., 54.7 E. Southern Iran. h:44 km ca. H=05 10 26.0		USCGS		
10.	SKS e PS SS i Lq Lq Lr Lr Lr	E N E N E N E E N Z	20	57	42 21 00 12 01 55 08 18 28 20 00 57 26 13 25 34	10.	P i SS i Lq Lq Lr Lr	EZ E N E N E N Z	15	22	18.8 43.2 13 11 24 15 30 47
							ePKP 1 PKP 1 Z 49 45 53 17				
10.	iP S P:C	NEZ NE	21	18	32.7 (cont.)	10.	P i SS i Lq Lq Lr Lr	EZ E N E N E N Z	16	08	42.4 43.2 13 11 24 15 30 47
							eSKPPKP P:E,C Mag. 7 1/2 (Mat.) 27.9 N., 54.7 E. Southern Iran. h:44 km ca. H=05 10 26.0		USCGS		
10.	iP i i i P:C	NZ,P E N N E	21	18	32.7 (cont.)	10.	P i SS i Lq Lq Lr Lr	EZ E N E N E N Z	16	08	42.4 43.2 13 11 24 15 30 47
							Mag. 6 1/4 - 6 1/2 (Mat.) 24.1 S., 112.1 W. Easter I. region. h:47 km ca. H=20 31 50.9		USCGS		
10.	iP i i i P:C	NEZ N N E	05	57	40.7 51	11.	P i P:C	EZ E	05	41	15.1 42 32.1
							27.3 N., 54.5 E. Southern Iran. h:25 km ca. H=05 30 05.9		USCGS		
11.	iP i P:S,W,C	NEZ Z	05	57	40.7 51	11.	iP i P:S,W,C	NEZ Z	05	57	40.7 51
	51.4 N., 159.3 E. Near south coast of Kamchatka. h:18 km ca. H=05 52 51.7		USCGS				51.4 N., 159.3 E. Near south coast of Kamchatka. h:18 km ca. H=05 52 51.7		USCGS		









Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
continued						15.	eL	NE	01	06	21
	P:S,D					15.	eP	Z	06	32	39
	Tonga Is. region.						27.8 N., 54.8 E.				
	h:146 km ca.						Southern Iran.				
	H=21 37 55.0	USCGS					h:113 km ca.				
							H=06 21 40.1	USCGS			
13.	iP	NEZ	22	17	19.5	15.	iP	Z	10	45	03.8
	iS	N			46.7		P:C				
	i	E			47.0						
	P:C										
13.	eP	Z	22	21	36	15.	P	NEZ	12	02	11
	9.7 S., 164.7 E.										
	Solomon Is. region.										
	h:25 km ca.										
	H=22 12 17.0	USCGS									
14.	P	Z	00	48	34	15.	iP	EZ	15	25	20.4
	i	Z			36.4		iS N,S E				35.4
	eFP	E		50	09		P:E				
	iF	N		54	26	15.	iP	NZ	19	17	19.9
	i	E			28		S	NEZ			35
	Lc	N		57	19		P:S,D				
	Lr	N	01	00	00	15.	iP	NZ	19	49	57.9
	Mag. 5 1/4 (Mat.)						i	E			58.4
	24.5 N., 95.0 E.						eS	E	51	25	
	Northern Burma.						P:N,C				
	h:52 km ca.										
	H=00 41 00.3	USCGS				15.	iP Z,P N		21	16	31.9
14.	eP	Z	09	12	28		i	E			32.2
	eS	N		16	10		S	NE			50
	20.1 N., 121.5 E.						P:S,D				
	Off north coast of Luzon,					15.	iP Z,P NE		22	30	37.2
	P. I.						i	NEZ			48
	h:25 km ca.						e	E			34 44
	H=09 07 34.7	USCGS					eL	E			36 44
14.	P	Z	20	45	22		P:S,W,C				
	PP	Z		49	03		51.7 N., 158.8 E.				
	S	E		56	02		Near south coast of Kamchatka.				
	ScS	E			28		h:25 km ca.				
	ePS	Z		57	20		H=22 25 50.6	USCGS			
	SS	E	21	02	26	15.	eP	NZ	22	41	39
	eL	N			16.4		i	N			59
	eL	E			16.5		eS	NE			43 21
	L	N		20	40		39.9 N., 146.2 E.				
	eL	Z		24.0			Off east coast of Honshu,				
	Mag. 5 3/4 - 6 (Mat.)						Japan.				
	10.8 N., 40.1 E.						h:78 km ca.				
	Ethiopia.						H=22 38 54.7	USCGS			
	h:56 km ca.										
	H=20 32 24.0	USCGS				15.	iP Z,P NE		23	27	51.9
14.	P	Z	23	57	24.2		i	Z			28 04.6
	e	E	00	03	21		i	Z			12.2
	eL	E		07	40		eS	NE			30 14
	L	Z		08	30		L	E			30
	52.0 N., 172.2 W.						L	N			32
	Fox Is., Aleutian Is.						ScS	NE			40 26
	h:100 km ca.						P:S,W,C				
	H=23 50 44.0	USCGS									

Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
continued						16.	ePKP	Z	16	05	51
	45.4 N., 151.3 E.						e	Z			06 24
	Kurile Is.						21.8 S., 67.6 W.				
	h:38 km ca.						Southern Bolivia.				
	H=23 24 40.5	USCGS					h:112 km ca.				
							H=15 46 00.1	USCGS			
16.	iP N,P EZ		03	21	08.9	17.	P	NEZ	01	10	32
	eL	NE		25	16 ca.		eS	E			11 17
	P:N,D										
	45.6 N., 151.3 E.										
	Kurile Is.										
	h:25 km ca.										
	H=03 17 56.5	USCGS									
16.	P	Z	06	38	21.4	17.	P	NEZ	08	16	57
	P:C						eL	N			41 28
	51.4 N., 173.2 W.						eL	E			42 05
	Andreanof Is.						28.7 N., 55.3 E.				
	h:25 km ca.						Southern Iran.				
	H=06 31 43.4	USCGS					h:25 km ca.				
							H=08 05 54.5	USCGS			
16.	PKP	Z	07	28	17	17.	P	Z	09	45	36
	SS	E		52	22		i	NZ			36.5
	eL	E	08	19	00		i	E			36.7
	Mag. 5 3/4 - 6 (Mat.)						29.0 N., 178.6 W.				
	41.1 S., 74.5 W.						Kermadec Is.				
	Off coast of southern Chile.						h:253 km ca.				
	h:17 km ca.						H=09 34 10.5	USCGS			
	H=07 08 16.5	USCGS				16.	iPKP	Z	10	50	49.3
16.	i	E			49.6		i	N			49.8
	i	N			49.8		epPKP	Z			51 20
	epPKP	Z			20		PP	Z			52 39
	PP	Z			39		i	NZ			44
	i	NZ			44		sPP	Z			53 25
	sPP	Z			25		e	N			58 21
	e	N			21		SS	E	11	09	35
	SS	E	11	09	35		e	E			11 09
	e	E			09		SSS	E			13 10
	SSS	E			10		eL	NE			23 36
	eL	NE			36		P:D				
	Mag. 5 3/4 - 6 (Mat.)						8.8 N., 73.4 W.				
	8.8 N., 73.4 W.						Northern Colombia.				
	h:120 km ca.						H=10 31 56.2	USCGS			
	H=10 31 56.2	USCGS				16.	P	Z	12	17	51
16.	P	Z	12	17	51		43.1 N., 103.9 E.				
	43.1 N., 103.9 E.						Southern Outer Mongolia.				
	h:23 km ca.						h:23 km ca.				
	H=12 12 04.4	USCGS					H=12 12 04.4	USCGS			
16.	iP	NEZ	12	51	03.3	17.	iP	NZ	15	31	43.0
	P:N,E,C						iPcP	Z			33 48.4
							e	Z			34 20
							P:S,D				



Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
continued						continued					
							SPS	N	14	18	27
							L	E		26	42
							P:S,E,D				
							31.3 S., 179.8 E.				
							Kermadec Is. region.				
							h:434 km ca.				
							H=13 55 16.6				
17.	iP	EZ	16	31	26.7	18.	iP E,P NZ		17	31	02.9
	eS	E			53		i	E			15
	P:E,D						S	N			24
							P:S,E,D				
17.	iP EZ,P N		17	34	55.8	18.	iP	NEZ	18	28	54.1
	S	N			35 24		iS	NEZ		29	23.6
	P:S,W,C						P:N,E,D				
17.	iP	NEZ	18	47	12.0	18.	eS?	N	22	40	34
	S	E			40		e	N			42 53
	P:S,E,D						esSS	NE			49 10
17.	eP	NEZ	20	44	00		eL	E			59 40
18.	iP	NEZ	03	20	25.4		eL	N	23	00	14
	iPcP	Z			21 41.5		Mag. 5 1/2 - 5 3/4 (Mat.)				
	PP	Z			22 15		56.7 S., 141.6 W.				
	ScP	Z			24 38.8		South Pacific Ocean.				
	S	NE			26 42		h:92 km ca.				
	eSS	N			30 12		H=22 13 30.0				
	P:S,W,D										
	5.9 S., 113.0 E.										
	Java Sea.										
	h:641 km ca.										
	H=03 12 35.7										
18.	P	Z	03	41	56	18.	iP E,P NZ		23	46	10.2
18.	P	E	04	01	02.1		e	E			47 05
	i	N			02.3		P:N,E,D				
	iS N,S E				26.5	19.	P	Z	00	58	06.0
18.	e	N	06	55	04		i	NE			06.2
18.	iP	NZ	07	28	14.2		22.5 S., 178.9 W.				
	S	N			42		Tonga Is. region.				
	P:N,C						h:477 km ca.				
							H=00 47 32.0				
18.	eP	NZ	11	03	10	19.	iP Z,P NE		01	40	17.7
18.	iP	NZ	13	29	13.5		P:C				
	ePcP	Z			31 24						
	e	E			38 19	19.	P	EZ	01	51	11
	P:N,C						PP	Z			52 17
	0.2 N., 123.9 E.						e	E			30
	Celebes.						PcP	Z			54 27
	h:91 km ca.						eS	N			55 56
	H=13 21 55.9						esS	N			56 08
							L	E			52
							L	N			55
							e	NE	02	04	07
							Mag. 5 3/4 - 6 (Mat.)				
							12.6 N., 121.9 E.				
							Luzon, P. I.				
							h:120 km ca.				
							H=01 45 29.9				
18.	iP Z,P NE		14	06	31.7	19.	eP	Z	02	28	43
	iS	NE			15 48.0		L	E			34 19
	iScS	E			16 13						(cont.)
	ScS	N			14						
	e	E			34						
					(cont.)						



Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
continued						continued					
							i	N	10	56	06.8
							eS	N			57 13
							P:N,D				
							12.5 N., 122.2 E.				
							Near south coast of Luzon,				
							P. I.				
							h:20 km ca.				
							H=02 22 48.3				
19.	iP	NEZ	02	47	09.2	19.	iP EZ,P N		14	15	57.0
	iS	NE			48 10.0		i	N			16 19.8
	P:S,W,C						P:D				
	Mag. 5.6 (Mat.)										
	39.7 N., 143.4 E.										
	Off NE coast of Honshu,										
	Japan.										
	h:40 km ca.										
19.	P	NEZ	06	25	03.2	19.	iP Z,P NE		17	13	33.9
	iS	N			31.2		pp	NEZ			14 20
	P:S,E,D						iS	N			20 49
	24.2 S., 179.6 E.						sS	N			22 08
	South of Fiji Is.						P:C				
	h:591 km ca.						36.6 N., 71.0 E.				
	H=06 29 07.1						Hindu Kush.				
							h:151 km ca.				
							H=17 04 30.3				
19.	P	NEZ	06	39	38.0	19.	P	NEZ	20	29	22
19.	iP	NZ	07	30	38.3	19.	iP Z,P NE		21	21	44.1
	i	NEZ			37.3		iS	NE			55
	i	N			40 32		P:C				
	i	Z			35						
	iS	E			37						
	P:S,C										
	Mag. 5.8 (Mat.)										
	39.5 N., 143.5 E.										
	Off NE coast of Honshu,										
	Japan.										
	h:40 km ca.										
19.	iP	NEZ	08	00	50.5	19.	P	NEZ	22	22	23
	iS	E			01 51		S	E			26 22
	P:S,W,C						L	E			28 07
	Mag. 5.6 (Mat.)						L	N			11
	39.5 N., 143.5 E.										
	Off NE coast of Honshu,										
	Japan.										
	h:40 km ca.										
19.	iP Z,P NE		08	25	10.3	19.	P	NEZ	05	07	11
	S	E			26 10		eS	E			08 15
	P:S,W,C										
	Mag. 6 - 6 1/2 (Mat.)										
	11.5 N., 44.5 E.										
	Gulf of Aden.										
	h:30 km ca.										
	H=03 21 26.5										
19.	iP	Z	08	57	45.4	20.	P	NEZ	14	37	41.0
	i	N			45.6		iP	NE			46 23
	eS	N			58 51		S	N			53 34
	P:D						eLq	E			40
							eLq				
							P:N,W,C				
							Mag. 5 1/2 (Mat.)				
							21.8 S., 169.3 E.				
19.	iP	NZ	10	55	55.4						
	i	N			56 03.8						
	i	Z			04.0						
					(cont.)						







Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
23.	P	Z	09	06	49		i	Z	20	22	56.6
	i	N			51.9		i	NE		23	43
	S	NE		15	50	23.	iP	Z	21	31	07.7
	eScS	E		16	17		i	E			08.1
	SS	E		20	10		i	N			19.3
	sSS	E		23	13		S	NE			31.9
	sSS	N			16		i	Z			33.1
	SSS	N		24	39		P:D				
	SSS	E			45						
	iPKPKP	Z		33	40.1	23.	iP	NEZ	23	15	30.7
	Mag. 6 - 6 $\frac{1}{4}$ (Mat.)						iS	NEZ			46.3
	43.9 N., 128.9 W.						P:S,E,D				
	Off coast of Oregon.										
	h:56 km ca.					23.	iP	Z	23	24	26.7
	H=08 55 55.2	USCGS					i	E			28.3
23.	P	NEZ	10	09	40.3		i	NE			38.1
	S	NE		13	02		i	N		25	25
	ScP	Z		17	05.9	24.	iP	NEZ	00	11	15.4
	i	Z			08.4		iS	EZ			30.9
	P:N,W,C						P:S,E,D				
	18.5 N., 145.2 E.					24.	P	Z	01	30	09.5
	Mariana Is.						S	NE			28.1
	h:256 km ca.										
	H=10 05 35.4	USCGS				24.	P	NZ	05	19	26
23.	iP	NEZ	11	05	27.1		i	N			36.1
	S	E			49		e	N			35 08
	i	N			54		e	E			36 56
	P:S,E,D						e	E	06	01	00 ca.
	35.7 N., 140.1 E.						e	N		18	00 ca.
	Honshu, Japan.					24.	iP Z,P E		08	57	11.4
	h:75 km ca.	J. M. A.					i	E			55.6
							P:D				
23.	iP	Z	12	09	58.1	24.	iP	Z	09	44	45.0
	i	N			58.7		PcS	Z			50 05
	S	NE		10	14.8		S	N			51 57
	P:C						SS	N			55 53
							SS	E			57 57
23.	P	NZ	13	23	55.9		L	E			57 28
	i	E			58.1		L	N			50
	S	E		27	11		P:C				
	L	N		28	09		Mag. 6 $\frac{1}{4}$ (Mat.)				
	L	E			18		4.1 N., 97.5 E.				
	46.9 N., 153.9 E.						Sumatra.				
	Kurile Is.						h:188 km ca.				
	h:35 km ca.						H=09 36 08.8	USCGS			
	H=13 20 18.9	USCGS				24.	iP	NE	11	00	36.9
23.	iP Z,P E		16	47	26.4		iS	E			01 00.1
	eL	N		17	04 25		P:N,C				
	L	NE			12 00 ca.	24.	iP	NEZ	13	53	36.2
	28.5 N., 55.5 E.						i	E			38.2
	Iran.						e	E			55 00
	h:54 km ca.						eL	E			22
	H=16 36 28.0	USCGS				24.	iP	NEZ	13	53	36.2
23.	P	Z	20	22	48.9		i	E			38.2
	i	NEZ			50.6		e	E			55 00
	i	NE			54.4		eL	E			22
	(cont.)						P:N,E,D				

Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
24.	iP	NZ	16	08	16	25.	iP	EZ	06	26	18.3
	i	N			17.7		iS	NEZ			36.1
	i	N			46.2		P:E,D				
	P:S,D					25.	iP	NZ	09	20	27.8
	2.1 N., 126.9 E.						pP	Z			22 15
	Molucca Passage.						P:S,C				
	h:60 km ca.						19.4 S., 177.9 W.				
	H=16 01 16.9	USCGS					Fiji Is.				
24.	iP EZ,P N		16	10	03.2		h:489 km ca.				
	i	Z			04.8		H=09 10 04.2	USCGS			
	S	E			19.0	25.	iP Z,P NE		10	07	36.7
	P:E,D						P:D				
24.	iP	NZ	16	26	52.8	25.	iP	EZ	10	14	08.0
	i	E			53.5		i	N			08.4
	PcP	Z		28	48.5		i	Z			36.7
	S	NEZ			32 52		i	N			40.1
	L	E			36 12		i	Z		17	14.6
	L	N			16		i	N			16.6
	Lr	E		37	07		i	E			23.8
	Lr	N			15		i	Z			25.1
	P:S,D						P:E,D				
	Mag. 5 - 5 $\frac{1}{4}$ (Mat.)					25.	iP	NZ	12	20	29.9
	4.6 S., 144.9 E.						S	N			21 42.7
	Near north coast of New Guinea.						e	E			47
	h:212 km ca.						e	N			22 08
	H=16 19 23.7	USCGS					P:N,E,D				
24.	P	NZ	18	45	55		40.5 N., 144.6 E.				
	i	Z			56.7		Off northeast coast of Honshu, Japan.				
	i	N			46 17.2		h:24 km ca.				
	i	E			20.2		H=12 18 53.3	USCGS			
	i	N			21.8	25.	iP	NZ	12	59	23.1
							S	N			00 36
24.	iP	NZ	19	42	08.1		P:S,W,C				
	i	E			08.7	25.	iP	EZ	13	12	04.3
	eS	N			48 15		e	N			34
	eL	N			50 32		P:E,D				
	L	E			51 20	25.	P	Z	16	26	46
	P:S,D						i	Z			47.9
	Mag. 5 $\frac{1}{4}$ (Mat.)						i	E			57.1
	2.9 S., 130.4 E.						PP	N			27 27.6
	Ceram Sea.						i	Z			28 48
	h:19 km ca.						i	N			30 43
	H=19 34 32.6	USCGS					e	E			31 00
24.	iP NZ,P E		20	42	01.3		18.9 N., 121.3 E.				
	i	NE			43 37		Near north coast of Luzon, P. I.				
	P:S,D						h:143 km ca.				
							H=16 21 53.0	USCGS			
25.	iP	NEZ	02	31	02.4						
	S	N			32 14						
	i	N			20						
	i	E			20.6						
	i	E			40						
	P:S,W,C					25.	iP	NEZ	16	50	12.3
	40.9 N., 144.2 E.						i	NEZ			14.6
	Near north coast of Honshu, Japan.						S	E			53 09
	h:40 km ca.	J. M. A.					(cont.)				





Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
continued											
			h	m	s				h	m	s
✓	Lq	E	16	53	42	26.	iP	NEZ	14	53	31.9
	Lq	N			50		S	NE			30
	Lr	E		54	00		L	E			48
	Lr	N		55	00		L	N			53
P:N,W,C						P:N,E,D					
Mag. 6 1/2 (Mat.)						Mag. 6 - 6 1/4 (Mat.)					
21.7 N., 143.1 E.						52.4 N., 174.5 E.					
North of Mariana Is.						Near Is., Aleutian Is.					
h:13 km ca.						h:60 km ca.					
H=16 46 32.9			USCGS			H=14 47 26.1			USCGS		
25.	iP	Z	17	11	52.9	26.	iP	NE	16	31	04.6
	i	Z			54.4		S	NE			32 52.7
P:D						P:C					
25.	iP	NZ	19	14	44.5	26.	iP	NEZ	16	51	14.0
	i	Z			51.3		iS	NE			43.4
	eS	N		15	37		i	Z			44.0
36.6 N., 141.6 E.						P:N,E,D					
Near east coast of Honshu, Japan.											
h:25 km ca.											
H=19 14 02.3			USCGS								
25.	iP	Z	19	22	02.8	26.	P	Z	20	04	51
	i	N			47		i	E			05 20
P:D							S	N			23
							i	E			26
25.	P	NZ	19	40	44	26.	iP	NEZ	20	39	07.2
	S	NE		41	39		i	NZ			15.0
							i	E			15.6
						P:S,W,C					
25.	iP	NEZ	20	20	22.9	26.	P	EZ	22	09	40
	eS	N		21	01		i	N			41.5
P:N,E,D							i	E			43.0
							S	Z			10 15.5
26.	P	NEZ	05	34	08	26.	iP	EZ	23	51	23.2
	e	N		35	21		S	NE			38
							i	N			39.8
						P:E,C					
26.	P	Z	07	13	32	27.	iP	EZ	07	10	20.5
	i	N			34.5		i	NEZ			23.5
	i	Z			37		PP	E			11 49
	S	E		22	13		iS	E			15 47
	eL	E		29	20		Lq	E			17 07
Mag. 5 1/2 (Mat.)							Lq	N			18 00
21.3 N., 170.1 E.							Lr	N			20 54
Loyalty Is.							Lr	E			21 34
h:89 km ca.							L	Z			22 46
H=07 02 57.7			USCGS			P:E,C					
26.	P	Z	11	38	38.5	Mag. 6 1/2 - 6 3/4 (Mat.)					
	i	N			39.0	27.8 N., 99.4 E.					
						Yunan Province, China.					
						h:33 km ca.					
						H=07 03 42.2			USCGS		
26.	iP	Z,P,N	14	00	27.5	27.	iP	Z	07	57	31.3
P:C							i	NE			32.3
21.0 S., 174.4 W.							i	Z			35.6
Tonga Is.						(cont.)					
h:25 km ca.											
H=13 48 57.2			USCGS								

Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
continued											
			h	m	s				h	m	s
	eS	N	08	01	22	28.	iP	EZ	04	57	25.7
P:D							i	Z			36.4
54.6 N., 157.7 E.							i	NE			44.4
Kamchatka.						P:E,C					
h:19 km ca.						28.	P	Z	13	24	37
H=07 52 23.7			USCGS				S	E			32 40
27.	P	Z	10	18	27	28.	L	E			36 30
	S	NE			42.8		L	N			38 57
						4.7 S., 102.7 E.					
						Near south coast of Sumatra.					
						h:142 km ca.					
						H=13 15 31.0			USCGS		
27.	eP	Z	10	52	32	28.	P	Z	14	43	08
28.5 S., 176.1 W.							S	E			14.6
Kermadec Is.							L	E			57.1
h:25 km ca.							L	N			58.1
H=10 40 31.6			USCGS			28.	P	NEZ	21	30	26
27.	e	E	10	57	57		S	NEZ			31 00
	eL	NE		11	02.3 ca.	29.	iP	EZ	04	28	03.3
							i	N			03.6
							S	NE			33
							i	Z			35.5
						P:W,C					
27.	iP	NEZ	11	24	05.4	29.	eL	N	08	31	24
P:N,E,D							eL	E			35
27.	iP	Z,P,N	12	56	47.0	29.	P	Z	09	07	50
	i	E			47.5		i	NZ			51.6
P:C							S	NE			08 16
							i	Z			16.7
27.	iP	NZ	16	18	40.7	29.	P	Z	09	11	48
	i	E			41.1		i	Z			54
	i	E			52	29.	iP	Z	09	32	36.7
	i	NE		19	02		i	NEZ			37.0
P:S,D							i	N			37.5
							i	E			38.2
27.	iP	NZ,P,E	20	30	56.1		i	Z			54
	e	E		37	45		S	NE			40 37
P:N,D							L	E			46 15
							L	N			47 28
						P:D					
						Mag. 6 - 6 1/4 (Mat.)					
						13.8 S., 166.0 E.					
						New Hebrides Is.					
						h:37 km ca.					
						H=09 22 55.8			USCGS		
28.	iP	Z	04	27	57.3	29.	iP	Z	09	50	01.7
	L	N			35 47		i	Z			12.7
	L	E			36 55		iS ?	NE			45
P:C						P:D					
31.2 N., 104.0 E.											
Szechwan Province, China.											
h:34 km ca.											
H=04 21 53.8			USCGS								



Date	Phase	Comp.	Time(GMT)			Date	Phase	Comp.	Time(GMT)		
			h	m	s				h	m	s
29.	iP P:W,C 22.6 S., 179.1 E. Fiji Is. region. h:654 km ca. H=10 24 07.3	EZ	10	34	22.4	30.	iP S i P:D	Z N E	11	55	06.6 30.6 31.8
29.	P i eS eL	NZ NE N NE	11	37	57 38 08 40 42 41 16	30.	P iS	Z NZ	16	42	31 47.7
29.	iP iS P:N,W,C	NEZ NEZ	12	18	30.2 19 11.0	30.	iP i i SPP eL P:S,E,D 6.7 S., 129.4 E. Banda Sea. h:179 km ca. H=18 51 14.4	NEZ Z NZ Z N	18	59	06.1 22.7 45.1 19 02 34 09 36
29.	iP iS P:N	NZ NE	12	58	54.8 55.4						USCGS
29.	iP PcP eS P:N,E,D 52.2 N., 173.4 W. Andreanof Is., Aleutian Is. h:76 km ca. H=14 02 42.5	NEZ Z E	14	09	50.2 12 08.0 15 34						USCGS
29.	iP i iS P:W,C	EZ,P N N E	16	06	22.2 23.8 39.0						
29.	iP i i P:N	NZ,P E E E	20	23	27.4 30.7 35.0						
29.	P i i eS e L	Z NZ Z N E E	22	10	15 13 39.4 41.5 17 12 18 21 00 ca.						
	85.0 N., 97.3 E. Severnaya Zemlya region. h:11 km ca. H=22 01 21.0										USCGS
29.	P i	NEZ N	23	22	12.3 14.6						
30.	iP i i eL P:E,D	EZ N E E	02	08	07.3 07.8 37.0 28 30						

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